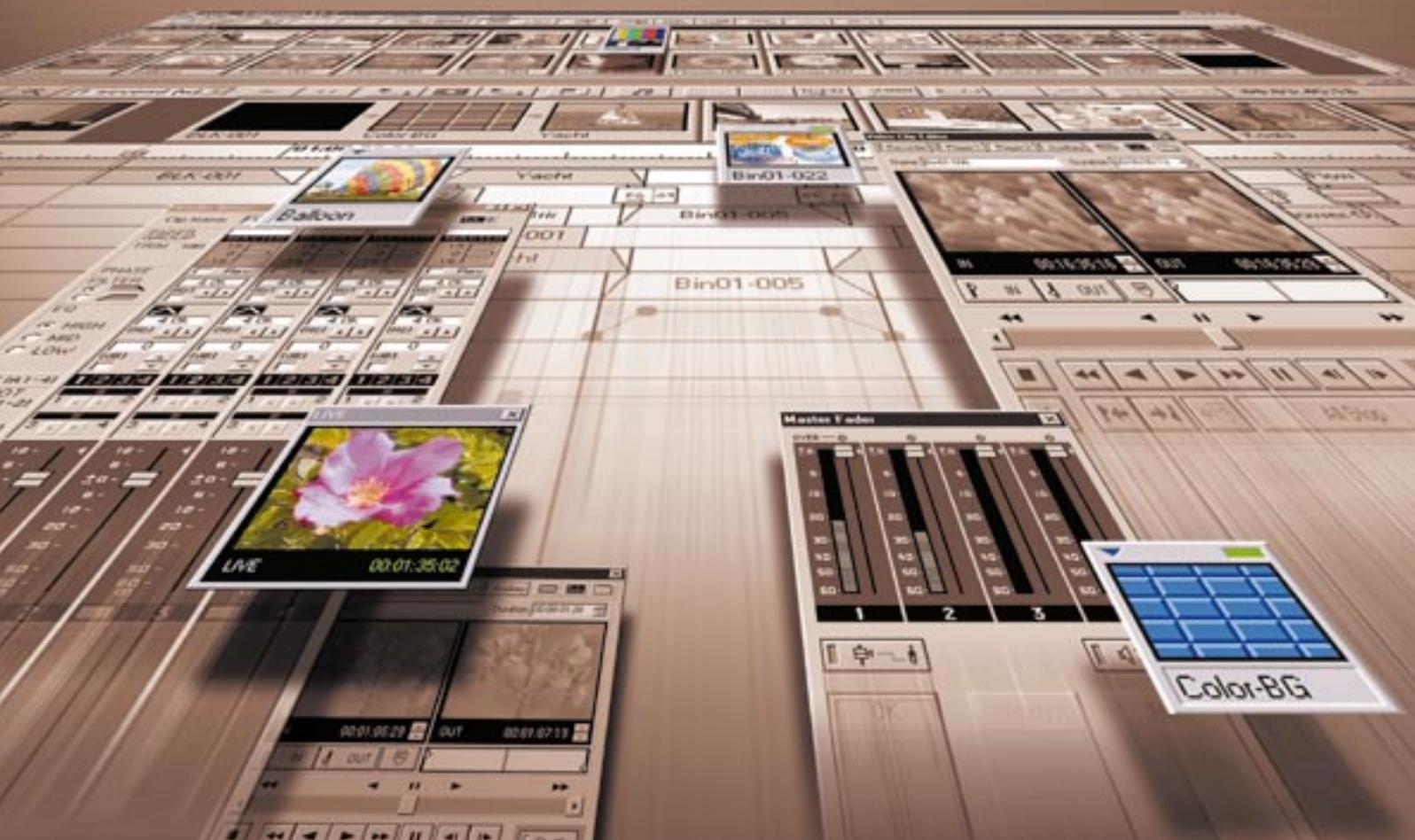


SONY®



EditStation™

ES-7



# *The ES-7— at the center of the Sony*



# *all-digital production system*

The Sony ES-7 EditStation, a non-linear editing system, is used around the world, bringing outstanding performance, superb image quality and increased productivity to a variety of different production environments.

*Non-Linear Editing System*

## *ES-7 EditStation*

### **Flexibility and Functionality for Conventional Linear and Analog Editing**

The ES-7 provides the flexibility and functionality you need to move smoothly from conventional linear and analog editing to all-digital editing. Multiple video interfaces allow you to connect a variety of digital and analog VTRs, and support for hybrid operations means you can undertake both linear and non-linear editing, according to the varying needs of your post-production operation.

### **All-in-one Concept for Easy to Use**

This is a truly user-friendly non-linear editing system. Dedicated editing software, the OS, PC, digital audio mixer, character generator, real-time DME switcher and other elements are packed into a single unit. Simply plug in the peripheral equipment, switch on and you are ready to edit.

### **4x Speed Upload/Download with Advanced Digital Technology**

Together with Sony DVCAM™ camcorders and VTRs, the ES-7 forms a complete digital production system. Using Direct Digital Link technology, all video and audio signals are processed digitally, providing optimum quality with virtually no signal deterioration. And, when you also use the Sony DSR-85/P DVCAM high-speed editing VTR, an advanced 4x speed transfer capability dramatically reduces the time it takes to transfer video and audio material to disk.

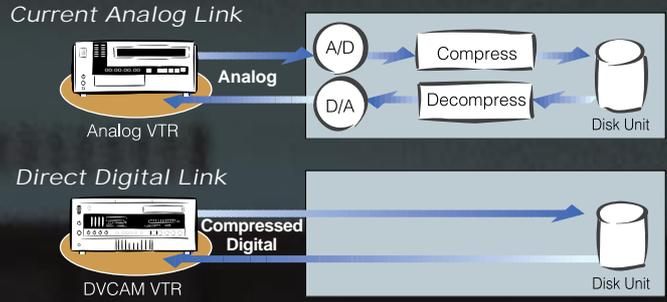
Make the ES-7 EditStation system the core of your production system.



## FEATURES

### High Picture Quality with the Direct Digital Link

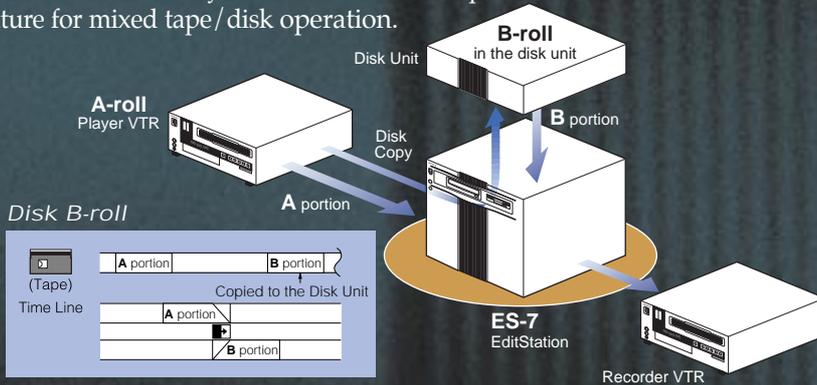
Picture quality is never compromised with the ES-7. Sony eliminates the signal degradation that occurs because of repeated recompression when uploading and downloading between a tape and the Disk Unit. Incorporating the same compression scheme as the DVCAM Series VTRs, uniformly compressed data can be directly transferred via a SDTI\* (QSDI™) interface. \*SDTI is defined as SMPTE 305M.



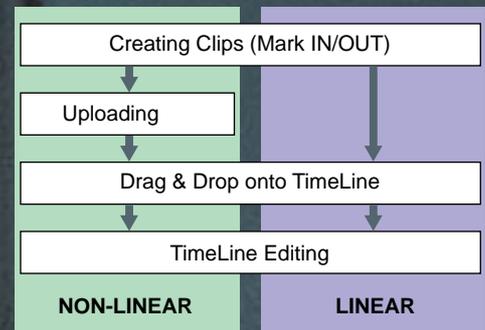
### Hybrid Operation

The ES-7 provides superb flexibility and operational efficiency, supporting non-linear editing, linear editing or a combination of both. This allows the use of whichever method is more appropriate for the editing task - for example, linear operation can perform simple tasks more efficiently than non-linear editing. Another major aspect of the ES-7's functionality is Disk B-roll™, a unique feature for mixed tape/disk operation.

In this mode, when you need to make a transition between any two segments on the same tape, the ES-7 automatically copies one of the segments to disk and an A/B roll edit is performed. The hybrid operation offers improved editing efficiency, with the added bonus of increased disk capacity.



Hybrid Operation Flow



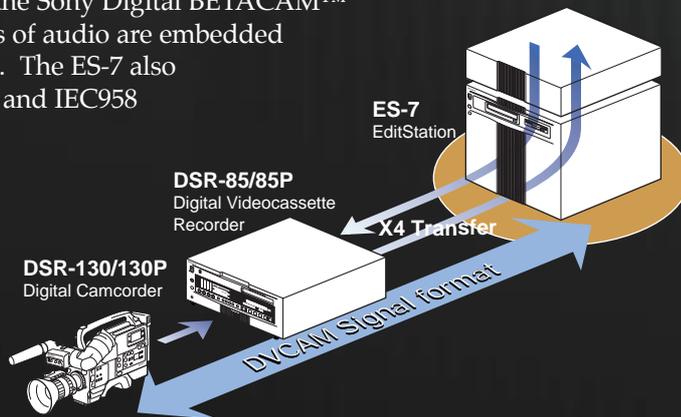
### Total Digital System

Sony offers an entire new line of digital products from camcorders and VTRs to editing systems. Since all these products incorporate the same compression scheme, Direct Digital Link via an SDTI (QSDI) is possible for a lossless upload. Total digital operation via an SDI interface allows the ES-7 to be connected with other equipment such as the Sony Digital BETACAM™ VTR. Four channels of audio are embedded in each video signal. The ES-7 also supports AES/EBU and IEC958 audio inputs.

### 4x Speed Upload/Download

Video and audio data transfer is a very time-consuming operation in non-linear editing. The EditStation system, however, realizes 4x speed upload/download when connected to the Sony DSR-85/85P DVCAM VTR.

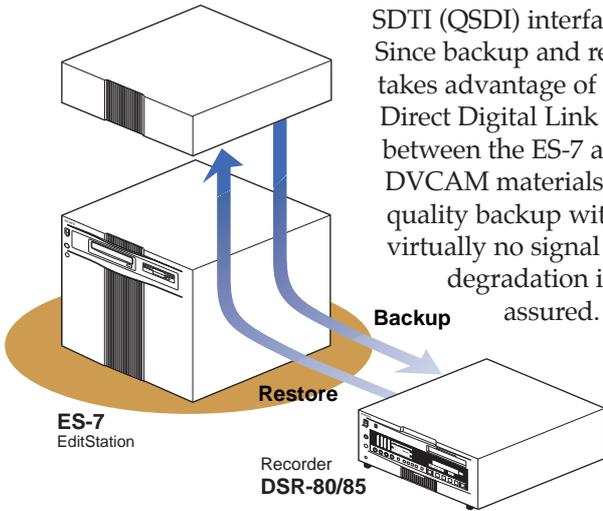
This 4x speed performance is achieved by utilizing compressed video signals and is accompanied by virtually no degradation of picture quality.



# High Speed Backup/Restore

You can now digitally 4x speed backup and restore video and audio data between external disk units directly using DVCAM cassettes in the

DSR-85/P connected via the SDTI (QSDI) interface. Since backup and restore takes advantage of the Direct Digital Link between the ES-7 and DVCAM materials, high quality backup with virtually no signal degradation is assured.



In addition, other digital VTRs or even analog VTRs can be used as backup VTRs. It is more cost-effective to store video/audio data on a video media instead of computer media.

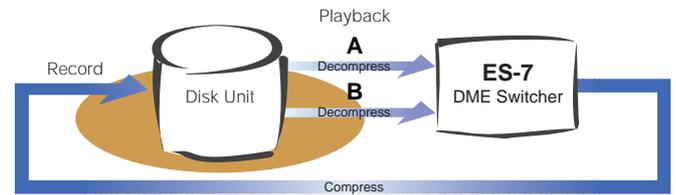
\*Note: Project files from the internal OS drive are backed up using conventional PC storage media.

# BackGround Operation

This innovative feature can save you a vast amount of time. While video/audio data is uploaded to the disk using QSDI Direct mode (including 4x speed upload), you can simultaneously create titles using the ESDraw™.

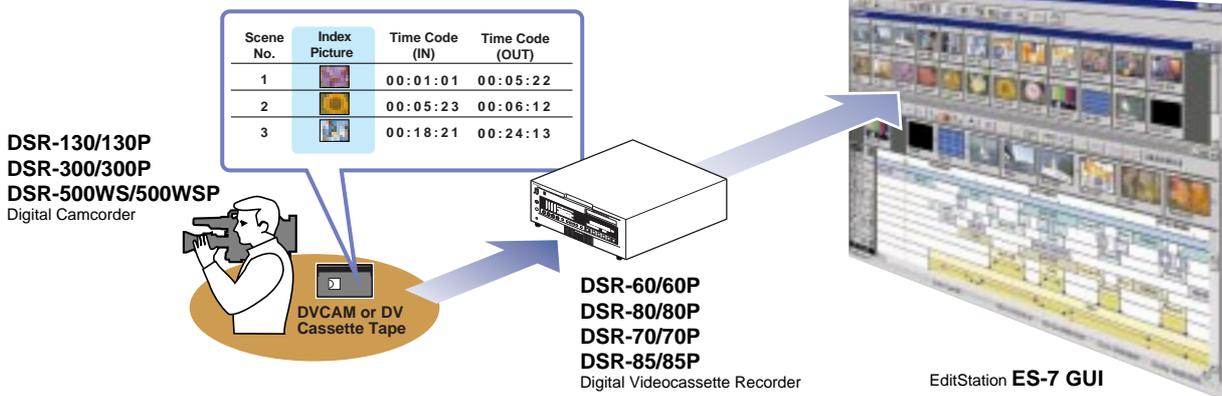
# Realtime Layering

As the ES-7 enables simultaneous 2-channel playback and 1-channel recording, repeated digital A/B roll, chromakeying and titling are supported in "realtime". All these operations are performed internally in the disk unit, and therefore in a totally digital domain. Optimum performance is achieved for complicated multi-layered effects.



# ClipLink™ Operation

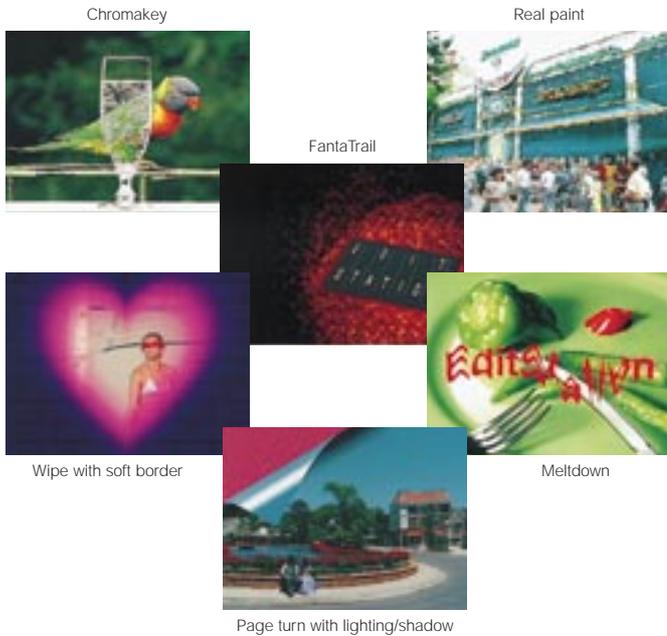
ClipLink operation saves considerable disk space and time. When DVCAM Series Camcorders and VTRs are used, clips made during acquisition can be sent to the EditStation via a VTR. Clips include data corresponding to Mark In and Mark Out points (in SMPTE/EBU time code), OK/NG status and scene numbers accompanied by a still Index Picture for at-a-glance identification. Clips are then utilized to make rough editing decisions prior to uploading the actual video/audio source into the Disk Unit. This means that only the selected clips and their accompanying data need to be uploaded.



# Control Panel

As well as controlling the non-linear system with a keyboard and mouse via the GUI, users can perform operations with the optional conventional-style control panel. Familiar linear operating techniques can therefore be combined with the convenience of non-linear editing, to achieve more intuitive operation.





## High Performance DME Switcher

Two types of Sony DME Switchers are available: advanced and basic. The advanced DME Switcher incorporates 4:2:2 signal processing and features a linear effect key and Down Stream Keyer. 2D effects such as rotate, slide and mosaic are available as standard, while 3D effects including perspective, page turn and page roll are available as options. High quality lighting for 3D patterns and trails, including the new FantaTrail™, are also available to add artistic excitement to images. The basic DME Switcher features DME Switcher functions and 2D effects as standard, and 3D effects as an option.



## Multiple Input/Output Formats

The ES-7 supports a wide range of video signals for both inputs and outputs. Analog composite, S-video (Y/C), RGB and Component (Y/R-Y/B-Y) are standard. Digital SDI and SDTI (QSDI) signals are also supported by an optional interface. In addition, the ES-7 can connect with up to four VTRs, and then you can now edit a variety of video sources simultaneously. These various capabilities provide great flexibility when configuring an editing system.

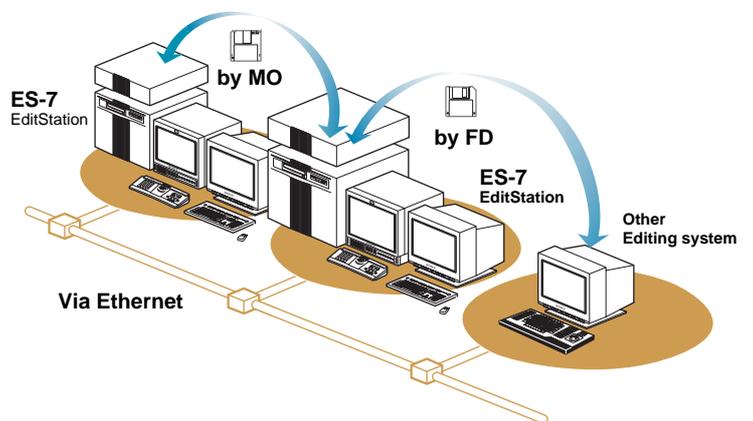
## Direct Touch Graphics

Delicate adjustments are essential during graphics creation as color, size and position have to be determined closely in accordance with the live picture. Taking this into consideration, the ES-7 enables graphics to be created directly on the live picture. Best of all, the editing GUI can be observed simultaneously. This makes it easy to go back and forth between editing and graphics adjustment.



## EDL And Project File Exchange

The edits on the ES-7 timeline can be converted to the Sony BVE-9100 EDL format. The EDL can be transmitted with other editing system for Off-line editing operation. Project files can also be exchanged between multiple ES-7 EditStations, using either ethernet or MO disk.



## Movie and Animations File Import/Export

The ES-7 allows you to use multimedia materials such as computer graphics to create more attractive, high impact productions. AVI, QuickTime® and sequential TGA (with alpha-channel) files can be imported into the system as video clips. The sequence on the TimeLine image can also be exported to movie files, such as AVI, QuickTime and sequential TGA files.

\*Note: This function requires QuickTime software to be installed.

## Narration Recording

You can now record a narration voice on any sound track on the TimeLine, and even preview the picture while narration is being recorded to disk in real-time. You can listen to previously recorded narration using Preview; this makes it easy to re-narrate from any point.

## Insert and Replace on Recorded Tapes

Occasionally, editors are asked to replace a particular portion of a completed tape because of an incorrect title, inappropriate picture or similar problem. This kind of change is extremely time-consuming with non-linear editing systems. With the ES-7, however, it is easy to insert sequences into the master tape without uploading\* to a disk—a convenient and precise solution to last-minute requests for tape amendment.

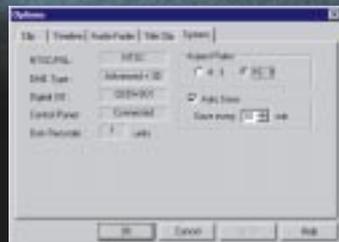
\*Note: This function requires more than two VTRs to be connected.

## Fixed Speed DMC (Dynamic Motion Control)

Fixed Speed DMC provides slow and fast motion of uploaded video material. A fix speed setting for uploaded video clips can now be specified.

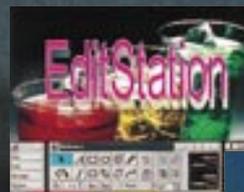
## 16:9 Mode

In 16:9 mode, the ES-7 will edit and display video material acquired in 16:9 aspect ratio. The effect patterns, titles and graphics all conform to the using the 16:9 aspect ratio.



## ESDraw™

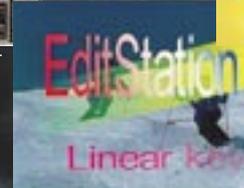
In addition to the standard TextComposer, geometrical drawings such as circles and polygons can be created with the optional ESDraw feature, adding flare to your text. Border lining, shadowing and coloring can also be performed to suit your creative needs. Independent channels enable each object, border line or shadow to be transparent. In addition, third-party graphics files such as titles and paint can be imported.



Menu on video monitor



Texture



Key signal control

# Sophisticated GUI for

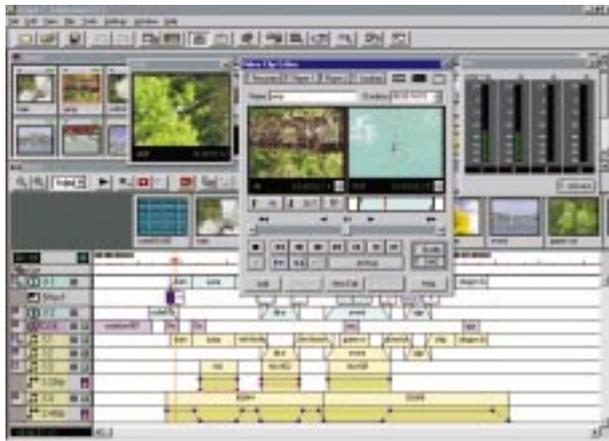
*The backbone of all ES-7 operations is a simple to use and highly effective GUI. Designed on the basis of operator needs, several types of GUI patterns are provided in the EditStation and these can be combined in many ways to*

## ClipEditor

Use this to make or modify video clips. From either ClipBin or TimeLine, a double click on any video clip opens the ClipEditor, and three windows appear: the live picture (left), the In point picture (center) and the Out point picture (right). Once inside ClipEditor, you can

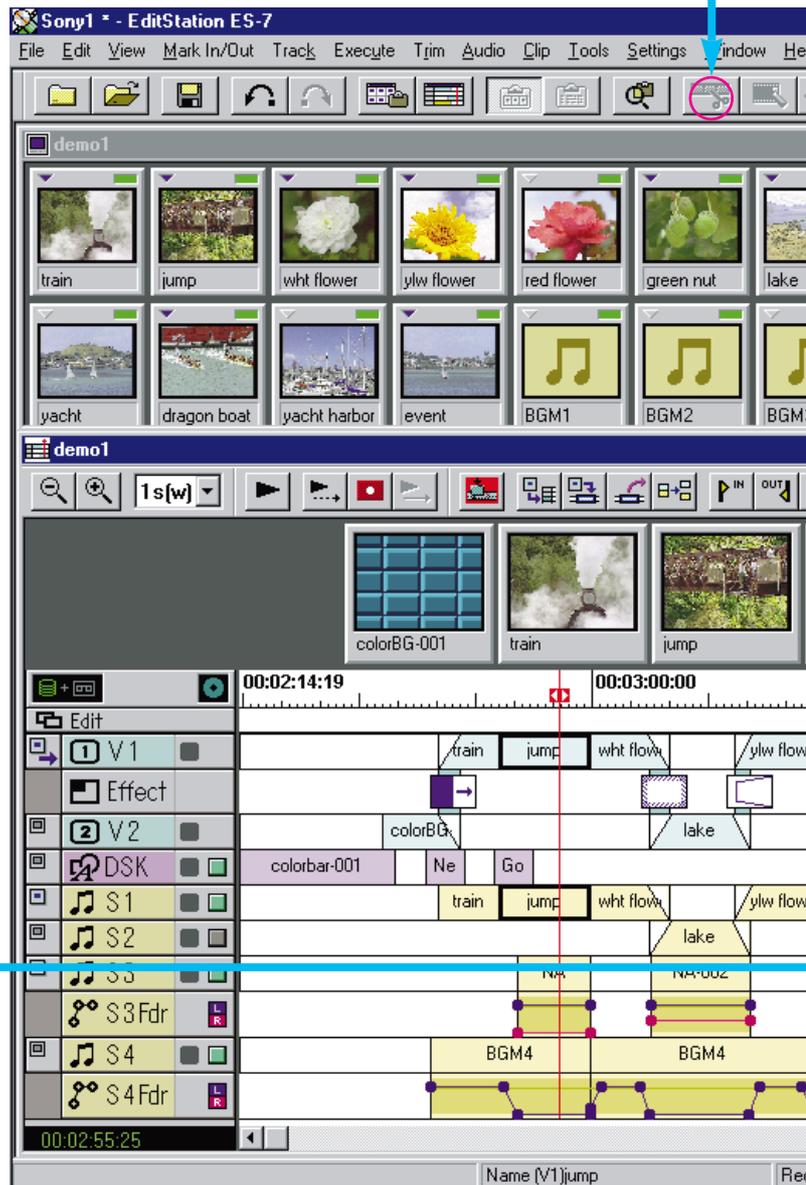
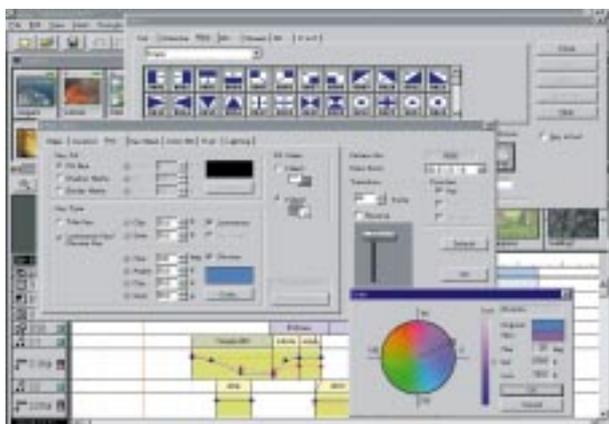


trim the head/tail frames of a clip, or view and modify details of each clip.



## Effect-Selector

Select from approximately 450 striking digital realtime effects in category groupings, and modify them to suit your creative impulse. In addition to cut, dissolve, picture-in-picture, wipe and 2D effects, 3D effects such as perspective, page turns or page rolls with lighting/trail can be selected.



## User Programmable Effects

As well as the many built-in effects, customized 2D and 3D can be easily created effects with the new effects editor\*\*.



Multiple effect position settings within one effect pattern are available. Up to 40 programmable effects can be created in each project file. Programmable effects can be exchanged between any project files.

\*\* Note:

User programmable effects require the ESBK-7023 Advanced DME/Switcher board to be installed.

# Easy-to-Use Operation

suit different user needs and experience levels. All "tools" are clearly laid out on the display. Instant access to clips and an intuitive "drag and drop" operation make the EditStation system fast to learn and easy to use.

## Clips

Each segment of program material is designated as a clip, with its own identifying data. Types of clips include picture clips, sound clips, title clips and color clips.



Green-lamp-lit clips are disk-based and are output from the ESBK-7045 Disk Unit.

## Audio Mixer

Fully automated audio-follow-video performance is offered as well as independent control of all eight channels. Each channel has low-cut/high-cut filters, 3-band EQ, delay control, pan-pot, mute and level control, while a tone generator, effects and pitch control are also provided. Master faders are installed for all four outputs.

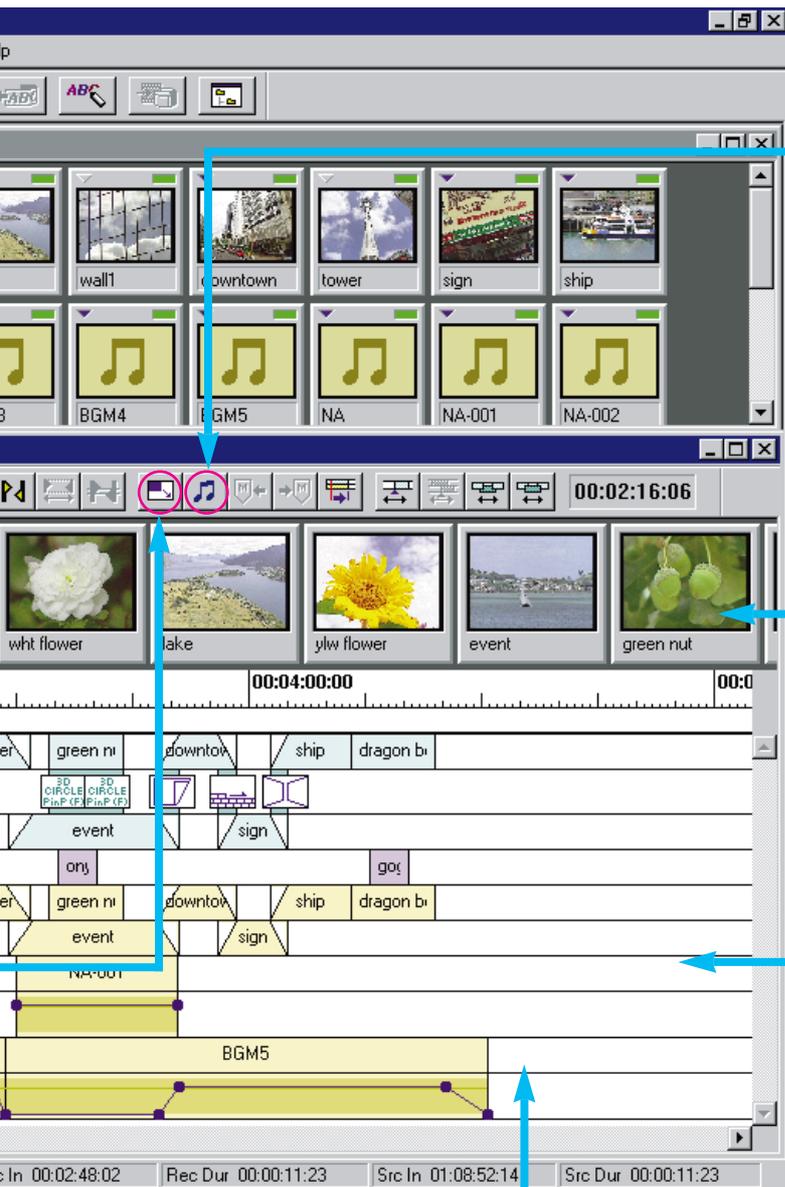


## Storyboard

The Storyboard concept is the key to efficient non-linear editing with the ES-7. StoryBoard tells you a content of each scene by just looking it. It is easy to see your edited sequence.

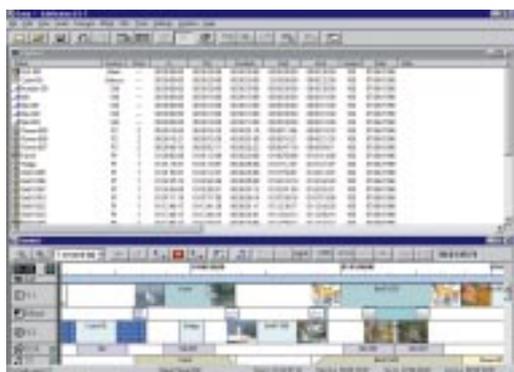
## TimeLine

Use the TimeLine to build a visual representation of your finished program. To add a clip on the TimeLine, select a clip in the ClipBin, and then press the "GetClipBin" button. The selected clip is placed at the TimeLine cursor position. Both Overwrite and Splice modes are available.



## Selectable Views

Various views are available for all levels of operators and operational needs. Display a ClipBin as a 'picture view' or a 'text view', while the TimeLine can be selected from among 'picture on track view', 'text on track view', or 'Storyboard view'. Since any combination can be selected, the emphasis is on creative flexibility.



## Variable Audio Level Setting

This enables you graphically to adjust variable audio level settings in a single clip with simplified rubber band style. With rubber band system, fader setting track is prepared on the timeline. Each track has two rubber bands for L and R and you can make setting for each rubber band. It is highly useful, when you want to adjust the level of BGM in the narration, for example.

## OPTION

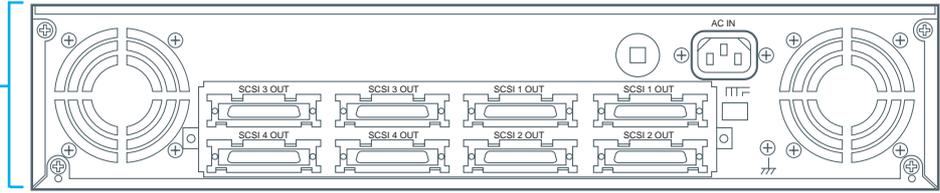
With a variety of optional items and system expandability, you can now build the non-linear editing system you have always wanted.

### Key Optional Accessories:

#### ESBK-7045

##### Disk Unit

- Up to approximately 60 minutes recordings with one unit. (standard compression rate)
- Up to four units can be connected
- The standard compression rate is 25 Mbps, with three higher levels of compression available.
- Requires ESBK-7041

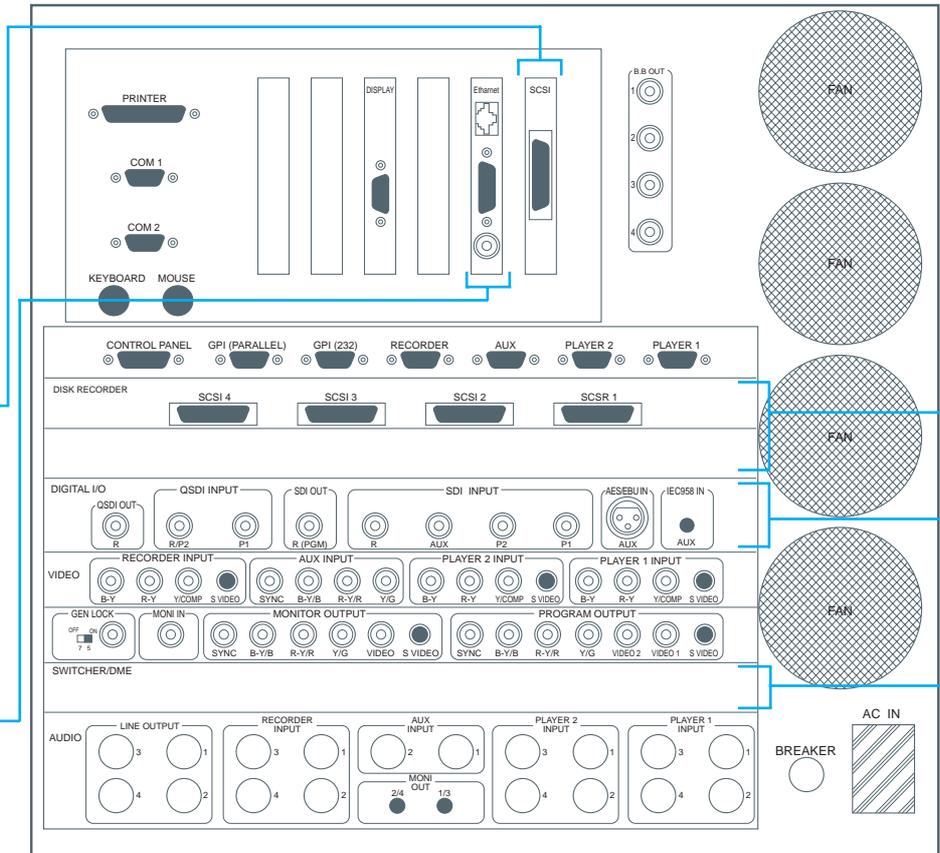


ESBK-7045 Rear View

#### ESBK-7051

##### SCSI Option

- Allows of external devices such as an MO drive and hard drive for project file exchange or graphics image storage.



ES-7 Rear View

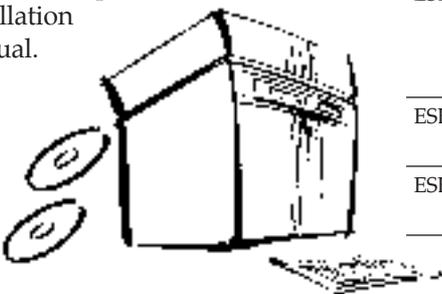
#### ESBK-7052

##### Ethernet Option

- Enables networking among multiple EditStation systems or other computer system for project file, EDL data and graphics image exchange.

### What's included with an ES-7 ?

Computer, CD-ROM drive, floppy disk drive, mouse, keyboard, digital audio mixer, OS (Windows NT 4.0), Editing software, TextComposer (character generator software), on-line manual, printed installation manual.



### Other Optional Accessories:

ESBK-7011	Control Panel	Dedicated control panel for intuitive operation. Cable included.
ESBK-7053	SCSI Cable	1 meter SCSI cable for connecting a SCSI device with the ESBK-7051.
ESBK-7054	Additional Memory Set	Consists of two 32 MB memories for an additional 64 MB memory.
ESBK-7071	ESDraw	Consists of a small daughter board and Draw software. Enables graphics to be made in addition to the standard TextComposer.
ESBK-7091E/F/G/J	EditStation Operation Manual	Printed manual available in English, French, German and Japanese.
ESBK-7092E/F/G/J	ESDraw Operation Manual	Printed manual available in English, French, German and Japanese.

# Recommended System Example

## ESBK-7041

### Disk Recorder Board

- Controls the ESBK-7045.  
(up to 4 disk units)

## ESBK-7031

### SDTI(QSDI) Interface board

- QSDI(Compressed digital signal input/output) for uploading/downloading with DVCAM VTRs.
- Provides Direct Digital Link with DVCAM VTRs.

## ESBK-7032

### SDI Interface board

- SDI(Serial Digital component signal) for uploading/downloading and linear editing.
- Requires ESBK-7031

## ESBK-7021

### Basic DME Switcher Board

- 4:1:1 processing.
- Provides around 250 wipes and 2D effects patterns with border and softness.
- Effects keying such as chromakey, luminance key, linear down stream key and key-mask capability.

## ESBK-7022

### 3D Effect Board for Basic DME Switcher Board

- Adds more than 150 3D effects patterns to ESBK-7021.
- Requires ESBK-7021.

## ESBK-7023

### Advanced DME Switcher Board

- 4:2:2 processing.
- Provides approximately 250 wipes and 2D effects patterns with border, softness and soft border.
- High quality linear keying such as chromakey, luminance key, linear down stream key and key-mask capability.
- Provides 40 user programmable effects patterns.

## ESBK-7024

### 3D Effect Board for Advanced DME Switcher Board

- Adds more than 150 3D effects patterns to ESBK-7023.
- Adds trails, FantaTrails, shadow, lighting, perspective and realtime paint effects to ESBK-7023.
- Requires ESBK-7023

## 1. Digital Non-linear Editing

A fully digital non-linear system with a Direct Digital Link can be achieved. If a DSR-85/85P VTR is used, an advanced high-speed transfer capability is then available.



### Configurations

ES-7 EditStation

ESBK-7011 Control Panel

ESBK-7023 Advanced DME Switcher Board

ESBK-7024 3D Effect Board for Advanced DME Switcher Board

ESBK-7031 SDTI (QSDI) Interface board

ESBK-7041 Disk Recorder Board

ESBK-7045 Disk Unit

ESBK-7071 ESDraw

## 2. Hybrid Editing

The most flexible of all systems—linear, non-linear and a mixture of both are within a single configuration. If a DSR-85/85P VTR is used, an advanced high-speed transfer capability is also available.



### Configurations

ES-7 EditStation

ESBK-7011 Control Panel

ESBK-7023 Advanced DME Switcher Board

ESBK-7024 3D Effect Board for Advanced DME Switcher Board

ESBK-7031 SDTI (QSDI) Interface board

ESBK-7041 Disk Recorder Board

ESBK-7045 Disk Unit

ESBK-7071 ESDraw

# SPECIFICATION

GENERAL	
Power requirement	AC 120 V, 50/60 Hz(UC), AC 220/240 V, 50/60 Hz(CE)
Operating voltage	AC 90 to 132 V, 48 to 63 Hz (UC), AC 180 to 264 V, 48 to 63 Hz (CE)
Power consumption	Main Unit (ES-7): Approx. 450 W Disk Unit (ESBK-7045): Approx. 100 W
Operating temperature	5 to 35 °C (41 to 95 °F)
Mass	
Main Unit (ES-7):	35 kg (77 lb 3 oz)
Disk Unit (ESBK-7045):	14 kg (30 lb 14 oz)
Control panel (ESBK-7011):	1.7 kg (3 lb 12 oz)
PC	
CPU	Pentium 200 MHz MMX
OS	Windows NT 4.0
Memory	64 MB
Hard disk drive	2 GB
Floppy disk drive	1 x 720 KB/1.44 MB
CD-ROM drive	1 x ATAPI, Quadruple (x 24) speed
Card slot	32-bit PCI bus (33 MHz) and 16-bit ISA bus
VGA	65 K colors, 75 Hz refresh rate
Mouse	1 x Mini DIN 6-pin
Keyboard	1 x Mini DIN 6-pin
VIDEO	
Analog video inputs	3 sources (P1/P2/R) selectable from Y/R-Y/B-Y, Composite or Y/C BNC: Y/R-Y/B-Y, Composite MiniDIN 4-pin: Y/C 1 source(AUX) selectable from Composite Y/R-Y/B-Y, G/B/R/Sync., BNC 1 x Gen. Lock IN, BNC
Digital video inputs	2 (P1, P2/R) x SDTI (QSDI), BNC 3 (P1, P2, R) x SDI, BNC
Analog video outputs	PGM and MONITOR outputs, Y/R-Y/B-Y, Composite and Y/C BNC: Y/R-Y/B-Y, Composite MiniDIN 4-pin: Y/C 4 x Black Burst outputs, BNC
Digital video outputs	1 x SDI PGM output (R), BNC 1 x SDTI (QSDI) PGM output (R), BNC

AUDIO	
Audio	Up to 22-ch inputs and 4-ch outputs
Analog audio inputs	4-ch x 3 sources (P1/P2/R), XLR 3-pin 2-ch x 1 sources (AUX), XLR 3-pin
Digital audio inputs	2-ch x 1 source (AUX), selectable from AES/EBU, or IEC-958
Analog audio outputs	LINE OUT: 4-ch, XLR 3-pin MONITOR OUT: 2-ch (1/3 snd 2/4), Pin-jack
Digital audio outputs	Embedded audio in SDI/SDTI (QSDI) outputs
COMPRESSION	
Compression scheme:	DV Compression
DME SWITCHER:	
Basic DME Switcher	Y:R-Y:B-Y = 4:1:1, 13.5 MHz, 8-bit (ESBK-7021) Chroma key and luminance key: 1-bit (linear key) Downstream keyer: 8-bit
Advanced DME Switcher	Y:R-Y:B-Y = 4:2:2, 13.5 MHz, 8-bit (ESBK-7023) Chroma key and luminance key: 8-bit (linear key) Downstream keyer: 8-bit
CONTROL	
P1, P2, AUX and R	RS-422A, D-Sub 9-pin
GPI (Parallel)	Active low TTL, D-Sub 9-pin
Control Panel	D-Sub 15-pin
GRAPHICS/TITLE	
Pixel format	4:2:2:4 (Y/R-Y/B-Y/Alpha)
Font	True type™
Import format	BMP/TGA/TIFF/PICT/JPEG
MOVIE FILE	
Import format:	QuickTime/AVI/Sequential TGA (w/alpha)
Export format:	QuickTime/AVI/Sequential TGA (w/alpha)
DIMENSIONS	
Unit: mm (inch)	

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